REMARKS

Amendments to the Specification:

Applicant has amended the title to correspond with the currently pending claims (e.g., see claims 1-4, 33-36, 45-48 and 57-60, see also Summary of the Invention on pages 4-13).

Applicant has also corrected an inadvertent permutation of the GenBank accession numbers between SEQ ID NO:1 and SEQ ID NO:3 (see page 4 and page 30 compared with page 92, see also printouts from GenBank that are attached hereto as **Exhibits B and C**).

All remaining amendments have been made to disable browser executable code that was included in the specification as filed (see Examiner's objection on page 2 of Office Action). As requested by the Examiner, Applicant has reviewed the entire specification and disabled all other recitations of browser executable code beyond those specifically identified by the Examiner.

No new matter has been added to the specification.

Amendments to the Claims:

As requested by the Examiner, Applicant has re-numbered the claims from 1-122 pursuant to 37 C.F.R. § 1.126 (see page 2 of Office Action). Other amendments are discussed below in the context of specific rejections.

Rejections under 35 U.S.C. § 112, second paragraph:

Claims 9, 21, 31, 41, 53 and 65 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the limitation "detecting modification of a substrate by the polypeptide" can further limit the step of "detecting the polypeptide". Applicant has amended claims 9, 21, 31, 41, 53 and 65 to clarify the claim language. The claims now read "wherein the polypeptide is detected by detecting modification of a substrate by the polypeptide" thereby paralleling the language of related claims that specify: "wherein the polypeptide is detected by performing immunohistochemical analysis on the sample using an antibody that specifically binds to the polypeptide" (claims 6, 18, 28, 38, 50 and 62); "wherein the polypeptide is detected by performing an ELISA assay using an antibody that

specifically binds to the polypeptide" (claims 7, 19, 29, 39, 51 and 63); and "wherein the polypeptide is detected using an antibody array comprising an antibody that specifically binds to the polypeptide" (claims 8, 20, 30, 40, 52 and 64). Withdrawal of this aspect of the rejection is respectfully requested.

Still referring to claims 9, 21, 31, 41, 53 and 65, the Examiner also states that the metes and bounds of "a substrate" and "a modification" are undefined. Applicant respectfully disagrees. The primary purpose of the § 112, second paragraph requirement is to ensure that the skilled public is put on notice of the scope of the claimed invention. MPEP § 2173. It is well known in the art that certain polypeptides interact with and modify so-called "substrates" (e.g., by converting one chemical into another). A skilled person would recognize that there may be substrates that are modified by the polypeptides recited in the claims and that these could be used as one way of detecting the inventive polypeptides (e.g., see page 7, lines 20-22 of specification). Further, there is no ambiguity as to what is and what is not a "substrate" or "modification" that falls within the scope of the claims. Indeed, a skilled person could readily determine whether a particular substrate is or is not modified by a particular polypeptide. Accordingly, for purposes of examination and infringement the claims are definite. Withdrawal of this aspect of the rejection is respectfully requested.

Claims 10, 47 and 48 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the limitation "stratifying a subject having the tumor for a clinical trial" contributes to the method objectives of "classifying a tumor" and "testing a subject". Applicant has amended claims 1-4 by deleting all references to "classifying a tumor" in the preamble (claim 10 depends from claims 1, 2, 3 or 4). Claim 10 has also been amended in light of this change and also to provide proper antecedent basis for each claim element. Claims 47 and 48 (and withdrawn claims 45 and 46) have also been amended by deleting the reference to "testing a subject" in the preamble. As amended, claims 10, 47 and 48 are "generic" method claims without specified "objectives". Withdrawal of this aspect of the rejection is respectfully requested.

Still referring to claims 10, 47 and 48, the Examiner also states that it is unclear how the subject is to be "stratified". Applicant has amended claim 10 to specify that the subject is

stratified "based on the results of the classifying step" (of claim 1, 2, 3 or 4). Claims 47 and 48 (and withdrawn claims 45 and 46) have also been amended to clarify that the subject is stratified based on "the results of" the detecting step. A skilled person would understand that the methods of claims 10, 47 and 48 include a step of using the results of the classifying or detecting step as one of the criteria (or the sole criterion) to stratify the subject for a clinical trial (e.g., see discussion of stratification on page 46, lines 17-29 of specification). Applicant respectfully submits that, as amended, claims 10, 47 and 48 satisfy the requirements of § 112, second paragraph. Withdrawal of the rejection is respectfully requested.

Claims 14-17 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the further step of "providing diagnostic, prognostic or predictive information based on the classifying step" contributes to the method objective of "classifying a tumor". As noted above, Applicant has amended claims 2-4 by deleting all references to "classifying a tumor" in the preamble (claims 14, 15 and 16 depend from claims 2, 3 and 4, respectively; claim 17 depends from claim 5 that depends in turn from claims 1, 2, 3 or 4). As amended, claims 14-17 are "generic" method claims without specified "objectives". Withdrawal of this aspect of the rejection is respectfully requested.

Claims 25-27 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the further step of "selecting a treatment based on the classifying step" contributes to the method objective of "classifying a tumor". As noted above, Applicant has amended claims 2-4 by deleting all references to "classifying a tumor" in the preamble (claims 25 and 26 depend from claims 3 and 4, respectively; claim 27 depends from claim 5 that depends in turn from claims 1, 2, 3 or 4). As amended, claims 25-27 are "generic" method claims without specified "objectives". Withdrawal of this aspect of the rejection is respectfully requested.

Claims 35-36 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the further step of "providing diagnostic, prognostic or predictive information based on the detecting step" contributes to the method objective of "testing a subject". Applicant has amended claims 35-36 (and withdrawn claims 33-34) by deleting all references to "testing a subject" in the preamble. As amended, claims 35-36

are "generic" method claims without specified "objectives". Withdrawal of this aspect of the rejection is respectfully requested. Applicant has also amended claims 35-36 (and withdrawn claims 33-34) to specify that the subject has a tumor and that the method provides diagnostic, prognostic or predictive information "about the subject" based on the "results of the" detecting step.

Claims 59-60 stand rejected under 35 U.S.C. § 112, second paragraph as being vague and indefinite. Specifically, the Examiner does not see how the further step of "selecting a treatment based on the detecting step" contributes to the method objective of "testing a subject". Applicant has amended claims 59-60 (and withdrawn claims 57-58) by deleting all references to "testing a subject" in the preamble. As amended, claims 59-60 are "generic" method claims without specified "objectives". Withdrawal of this aspect of the rejection is respectfully requested. Applicant has also amended claims 59-60 (and withdrawn claims 57-58) to specify that the subject has a tumor and that the method selects a treatment based on the "results of the" detecting step.

Rejection under 35 U.S.C. § 112, first paragraph:

Claims 3, 4-10, 15-22, 25-31, 35-43, 47-55 and 59-67 stand rejected under 35 U.S.C. § 112, second paragraph as failing to comply with the written description requirement. Applicant respectfully traverses this rejection.

As amended, claims 3 and 4 are drawn to a method comprising steps of providing a tumor sample; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and classifying the tumor as belonging to a tumor subclass based on the results of the detecting step. Claims 5-10, 15-22 and 25-31 depend therefrom. Claims 35-36 are drawn to a method comprising steps of providing a sample isolated from a subject having a tumor; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and providing diagnostic, prognostic or predictive information about the subject based on the results of the detecting step. Claims 37-43 depend therefrom. The methods of claims 47-55 stratify the subject for a clinical trial based on the results of the detecting step. The methods of claims 59-67 select a treatment based on the results of the detecting step.

The written description requirement imposes a duty on patent applicants to notify the public of the scope and content of their inventions. The requirement is satisfied if one skilled in the art would reasonably conclude that the inventors were in possession of the claimed invention at the time the patent application was filed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555 (Fed. Cir. 1991).

The Examiner acknowledges that all method claims drawn to breast tumors (i.e., claims 11-12, 22, 32, 44, 56 and 68) are adequately described in the specification and thus that a skilled person would have recognized that the inventors were in possession of these methods at the time of filing (see page 4 of Office Action). (Applicant notes that the Examiner seems to have inadvertently included claim 22 under this rejection). However, the Examiner argues that the specification does not adequately describe method claims that (1) apply to any pathological state (i.e., not just to tumors) or (2) are drawn to tumors in general (i.e., not just to breast tumors). Applicant respectfully disagrees.

With respect to (1), Applicant refers the Examiner to the numerous clarifying amendments that have been made to the pending claims. In particular, Applicant notes that all claims now refer to methods that are applied to a *tumor* sample (claims 3, 4-10, 15-22 and 25-31) or a sample isolated from a subject having a *tumor* (claims 35-43, 47-55 and 59-67). Thus, the claimed methods do not apply to *any* pathological state as the Examiner suggests. Further, tumor samples (e.g., see page 7, lines 4-22 and definition on page 27, lines 4-9) and samples isolated from a subject having a tumor (e.g., see page 4, lines 21-29; page 7, line 28 to page 8, line 22; and definition on page 26, lines 1-6) are thoroughly described in the specification.

With respect to (2), the Examiner argues that it was known at the time of filing that "tumors are heterogeneous and much variation between tumor samples is possible". Thus, the Examiner states that "there is no nexus between the expression of [the polypeptide of] SEQ ID NO:3 in a breast tumor and the expression of [the polypeptide of] SEQ ID NO:[3] in a non-breast tumor". The undersigned and Dr. Brenda Herschbach Jarrell contacted the Examiner on April 23, 2004 to discuss this second aspect of the rejection. The Examiner kindly granted a telephone interview on May 5, 2004. During the interview, Dr. Jarrell emphasized that the claims have been limited to a single tumor marker, namely the polypeptide of SEQ ID NO:3. Thus, the genus

of markers encompassed by the method claims is very small. Dr. Jarrell then explained that a skilled person would have recognized that the inventor's demonstration of a novel tumor marker in breast put them in possession of methods involving the same marker with other tumors, not just breast tumors. Indeed, Dr. Jarrell clarified that while tumors from different tissues were known to exhibit heterogeneity at the time of filing (e.g., in their *patterns* of expression across *collections* of genes), it was also known that numerous *individual* markers have and can be used in the classification, diagnosis, prognosis, etc. of more than one tumor type. Thus, while the emphasis in modern cancer research has been on identifying tumor specific markers (or patterns of markers), it is still recognized that individual markers may have utility in more than one tumor type. Once the present inventors demonstrated that the polypeptide of SEQ ID NO:3 was a novel tumor marker it would have been trivial to determine it's utility across different tumor types. A person of ordinary skill would have recognized this.

During the interview, Dr. Jarrell offered to provide the Examiner with published references that support these conclusions. Applicant has therefore attached hereto three exemplary review articles, namely "Advances in biological markers for cancer", Klavins, *Ann. Clin. Lab. Sci.* 13:275-280, 1983; "Oncogenes as markers for early detection of cancer", Cooper, *J. Cell Biochem. Suppl.* 16G:131-136, 1992; and "Serum tumor markers", Perkins et al., *Am. Fam. Phys.* 68:1075-1082 (see **Exhibit A**). The first two articles were published before the filing date of the present application. Each of these references reinforces the fact that the expression of individual tumor markers can and has been used to identify more than a single tumor type (e.g., see description of alpha-fetoprotein, carcinoembryonic antigen and human chorionic gonadotrophin in Klavins and Perkins et al.; of oncogenes c-myc, ras K and ras N in Cooper; and of cancer antigens 27.29, 19-9 and 125 in Perkins et al.). For example, while cancer antigen 19-9 is primarily used for the detection of pancreatic and biliary tract cancers it has also shown utility in detecting colon, esophageal and hepatic cancers (see Table 1 and page 1077 in Perkins et al.). Similarly, while carcinoembryonic antigen is primarily used for the detection of colorectal cancer it has also shown utility in detecting a variety of other cancers including breast, lung, gastric, pancreatic, bladder, medullary thyroid, head and neck, cervical, and hepatic cancers, lymphomas and melanomas (see Table 1 and page 1076-77 in Perkins et al. and Klavins). Applicant

respectfully submits that these references are further evidence supporting Applicant's position that a skilled person would have recognized that Applicant was in possession of methods involving more than just breast tumors.

Furthermore, there is a strong presumption that claims submitted with an application are adequately described by the application. *In re Wertheim* 541 F.2d 257 (Fed. Cir. 1993). All of the rejected claims were present in the application as originally filed. The burden is therefore on the Examiner to overcome the strong presumption of descriptive support with evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims. The Examiner cannot meet this burden; the claimed invention is appropriately described in the specification. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 102(b) in view of Hackett:

Claims 3-6, 9, 12, 15-18, 21, 22, 35-38, 41-44, 67 and 68 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hackett (US 5,158,893). Applicant respectfully traverses this rejection.

As amended, claims 3 and 4 are drawn to a method comprising steps of providing a tumor sample; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and classifying the tumor as belonging to a tumor subclass based on the results of the detecting step. Claims 5-6, 9, 12, 15-18, 21 and 22 depend therefrom. As amended, claims 35-36 are drawn to a method comprising steps of providing a sample isolated from a subject having a tumor; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and providing diagnostic, prognostic or predictive information about the subject based on the results of the detecting step. Claims 37-38, 41-44, 67 and 68 depend therefrom.

Hackett describes the use of a monoclonal antibody designated 312C8-1 (see column 6, lines 17-21). The Examiner states that the 312C8-1 mAb seems to have "the same distribution and prognostic significance" as antibodies of the present invention that recognize the polypeptide of SEQ ID NO:3 (see page 6 of Office Action). Noting that Hackett does not disclose whether 312C8-1 mAb recognizes the polypeptide of SEQ ID NO:3, the Examiner then indicates that "in

the absence of evidence to the contrary, the burden is on the Applicant to prove that the claimed product is different from those taught by the prior art and to establish patentable differences" (see page 6 of Office Action). Applicant respectfully traverses this rejection on the basis of evidence showing that the 312C8-1 mAb recognizes a 51 kDa keratin while the polypeptide of SEQ ID NO:3 is a 317 kDa cadherin.

As noted in Hackett, the 312C8-1 mAb recognizes a protein that belongs to the keratin family of proteins (see abstract). Specifically, the 312C8-1 mAb recognizes a 51 kDa keratin with an isoelectic pH of 5.4 (see column 11, lines 29-35). Hackett speculates that the 51 kDa keratin is keratin 14 (see column 3, lines 1-4 and column 9, line 67 to column 10, line 2). Applicant has analyzed the sequence of keratin 14 (GenBank protein accession number NP_000517) and confirmed that it is a 51 kDa protein (see **Exhibit B**, attached). As discussed on page 29, lines 11-29 of the present application, keratins are intermediate filament proteins and it was known at the time of the invention that antibodies against certain keratins could be used to distinguish between different cell types and tumors therefrom. In this context, Applicant cited references by the inventors in Hackett (see two references by Dairkee et al. in section spanning pages 29-30).

In contrast, the polypeptide of SEQ ID NO:3 is a new tumor marker that belongs to the cadherin family of calcium binding membrane proteins (see page 31, line 26 – page 33, line 6). Specifically, the polypeptide of SEQ ID NO:3 is cadherin EGF LAG seven-pass G-type receptor 2 (GenBank protein accession number NP_001399) (see page 13, lines 22-24). For purposes of comparison, Applicant has analyzed the sequence of this cadherin and notes that it has a molecular weight of 317 kDa, i.e., six times that of keratin 14 (see **Exhibit C**, attached).

Applicant respectfully submits that this factual evidence satisfies the burden of showing that the antibody of Hackett recognizes an entirely different protein from the antibodies of the presently claimed invention and thus that Hackett cannot anticipate the claimed invention. The rejection should be withdrawn.

Rejection under 35 U.S.C. § 102(b) in view of Soppet:

Claims 35-39 and 41-43 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Soppet (WO 98/21242). Applicant respectfully traverses this rejection.

As amended, claims 35 and 36 are drawn to a method comprising steps of providing a sample isolated from a subject having a tumor; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and providing diagnostic, prognostic or predictive information about the subject based on the results of the detecting step. Claims 37-39 and 41-43 depend therefrom.

The Examiner cites Soppet as (a) teaching a "calcitonin receptor" with an antigenic region that is identical to a C-terminal portion of the polypeptide of SEQ ID NO:3; and (b) teaching immunohistochemical methods for "detecting cancer comprising detecting the (sic) overexpression of the calcitonin receptor" (referring to page 29, lines 9-16, see page 7 of Office Action).

In order to anticipate a claim, a reference must teach every element of the claim. MPEP § 2131. While the polypeptide of Soppet does seem to share the same sequence as the C-terminal portion of SEQ ID NO:3, Soppet does not describe the polypeptide of SEQ ID NO:3. Indeed, the polypeptide of Soppet is described as having a molecular weight of 61 kDa and to function as a "calcitonin receptor" (e.g., see page 5, lines 12-14). Calcitonin is a hormone secreted by the thyroid gland which controls the levels of calcium and phosphorous in the blood. In contrast, the polypeptide of SEQ ID NO:3 has a molecular weight of 317 kDa and functions as a cadherin. Cadherins are transmembrane proteins that are involved in cell-cell attachment.

Furthermore, even if Soppet had described the polypeptide of SEQ ID NO:3, it cannot anticipate the claimed methods because it does not contain an enabling disclosure. See MPEP § 2121.01 ("In determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure'... ." *In re Hoeksema*, 399 F.2d 269 (CCPA 1968)). Soppet provides no teaching or suggestion of a method comprising steps of providing a sample isolated from a subject having a tumor; detecting expression or activity of a gene encoding the polypeptide of SEQ ID NO:3 in the sample; and providing diagnostic, prognostic or predictive

information about the subject based on the results of the detecting step, as recited in the rejected claims.

In arguing that Soppet discloses the claimed methods, the Examiner points to Soppet's "teachings" on page 29 that read:

> Thus, for instance, a ***diagnostic assay*** in accordance with the invention for ***detecting over-expression of calcitonin receptor protein*** compared to normal control tissue samples may be used to ***detect the presence of a disease/disorder such as*** infections, including bacterial, fungal, protozoan and viral infections, particularly, infection caused by HIV-1 or HIV-2; pain; ***cancers***; anorexia; bulimia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; angina pectoris; myocardial infarction; ulcers; allergies; benign prostatic hypertrophy and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia or severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others. (***emphasis*** added).

This mere *mention* of a diagnostic assay for any of a variety of unrelated diseases and disorders (including cancers) by detecting overexpression of Soppet's "calcitonin receptor" in no way provides an enabling description of the claimed invention. There is no description of how to perform a diagnostic assay for any of the listed diseases; certainly no description of how to provide diagnostic, prognostic or predictive information about a subject having a tumor. There is no experimental data *whatsoever* that supports the diagnostic methods. In fact, the *only* experimental data in Soppet seems to be the nucleotide sequence of the "calcitonin receptor". As such, Soppet is a classic gene template application that is based solely on the automated sequencing of a putative human gene and that was filed before any additional experiments were performed. Instead, theoretical "data" was mechanically derived from the nucleotide sequence and simply inserted into a template application. Thus, the corresponding protein was never isolated; instead, its length, sequence and molecular weight were *deduced* from the nucleotide sequence (see page 5, lines 12-14 and page 7, lines 5-9). Similarly, the polypeptide's function was not assayed but *predicted* based on homology with sequences of other known proteins (see

page 5, lines 22-25). Nor were antibodies raised against the corresponding polypeptide; instead, epitope-bearing portions were *predicted* using a theoretical model (see page 9, line 22 – page 10, line 6 and page 7 of Office Action). Further, beyond the unsupported statements on page 29, there is no connection (implicit or explicit) among the various diseases or between the various diseases and the sequenced "calcitonin receptor". In fact, Applicant submits that the list is no more than a laundry list of diseases that was strategically included in a template application by a patent practitioner in an attempt to (a) provide utility and (b) protect potential future inventions based on putative genes. This assertion is reinforced by the fact that the *exact* same list (including the misspelling of "Gilles **dela** Tourett's syndrome") was used by Human Genome Sciences (the assignee in Soppet) and other genome companies in applications for a whole host of other entirely unrelated genes (see USPTO database searches attached as **Exhibit D** and highlighted sections from a couple of representative applications attached as **Exhibit E**).

For all of these reasons, Applicant respectfully submits that the cited section of Soppet (and Soppet as a whole) did not place the public in possession of diagnostic methods for detecting any of the listed diseases and does not therefore satisfy the requirements of an "enabling disclosure". This conclusion is entirely consistent with the fundamental purpose of patent law, namely to promote the sciences and useful arts through the disclosure of *useful* knowledge. *Akzo N. V. v. U.S. Int'l Trade Comm'n*, 808 F.2d 1471. Indeed, while Soppet's disclosure of the "calcitonin receptor's" nucleotide sequence may be useful to the public; the unsupported laundry list of diagnostic methods on page 29 is not. Accordingly, rejecting the presently claimed invention over Soppet would not serve a fundamental purpose of the patent system. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) in view of Hackett and Schlom:

Claims 3-6, 9-12, 15-18, 21, 22, 25-28, 31, 32, 35-38, 41-44, 47-50, 53-56, 59-62 and 65-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hackett in view of Schlom ("Monoclonal Antibodies: They're More and Less Than You Think", in Molecular Foundations of Oncology, 1991, pp. 105-107). The deficiencies of Hackett are discussed above. Schlom is relied on to teach "dependent" limitations (i.e., selecting treatment; stratifying a subject for a

clinical trial; providing diagnostic, prognostic or predictive information) that are only present in dependent claims 10-11, 25-28, 31, 32, 49-50, 53-56, 61-62, 65-66 and independent claims 47-48, 59-60 and does not remedy the deficiencies of Hackett. Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) in view of Hackett, Schlom and Kerr:

Claims 3-7, 9-12, 15-19, 21, 22, 25-29, 31, 32, 35-39, 41-44, 47-51, 53-56, 59-63 and 65-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hackett and Schlom in view of Kerr ("Common Immunological Techniques: ELISA, Blotting, Immunohistochemistry and Immunocytochemistry", in Immunochemistry LabFax, 1994, pp. 175-177). The deficiencies of Hackett (and Schlom) are discussed above. Kerr is relied on to teach a limitation that is only present in dependent claims 7, 19, 29, 39, 51 and 63 (detection of the polypeptide using an ELISA assay) and does not remedy the deficiencies of Hackett (or Schlom). Withdrawal of the rejection is respectfully requested.

Rejection under 35 U.S.C. § 103(a) in view of Hackett, Schlom and Hoeffler:

Claims 3-6, 8-12, 15-18, 20-22, 25-28, 30-32, 35-38, 40-44, 47-50, 52-56, 59-62 and 64-68 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hackett and Schlom in view of Hoeffler (WO 99/40434). The deficiencies of Hackett (and Schlom) are discussed above. Hoeffler is relied on to teach a limitation that is only present in dependent claims 8, 20, 30, 40, 52 and 64 (detection of the polypeptide using an antibody array) and does not remedy the deficiencies of Hackett (or Schlom). Withdrawal of the rejection is respectfully requested.

Conclusion:

Applicant respectfully submits that the foregoing Amendments and Remarks remove all grounds for rejection of the application, thereby placing it in condition for allowance. If it is believed that a telephone conversation would help expedite prosecution of this case, or if any further information is required, the Examiner is invited to contact the undersigned at (617) 248-4793. Additionally, please charge any fees that may be required, or credit any overpayment, to our Deposit Account No. 03-1721.

Respectfully submitted,

Dated: July 15, 2004

Charles E. Lyon, D.Phil.
Agent for Applicant
Limited Recognition under 37 C.F.R. § 10.9(b)

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